

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 **Claim 1 (currently amended):** Radio communications
2 apparatus comprising:
3 a quadrature modulator for making the transition of
4 the phase of a modulated wave via a in-phase component and
5 a quadrature component;
6 a first voltage-controlled oscillator for outputting
7 a first transmission signal;
8 a second voltage-controlled oscillator;
9 a first mixer for frequency-converting the first
10 transmission signal based on the output signal of the
11 second voltage-controlled oscillator;
12 a phase comparator for comparing the phase of the
13 output signal of the quadrature modulator with the phase of
14 the output signal of the first mixer;
15 a low-pass filter for filtering the component below a
16 predetermined frequency of the output signal of the phase
17 comparator and supplying the resulting signal to the
18 frequency control terminal of the first voltage-controlled
19 oscillator;~~and~~
20 a first band-pass filter for outputting a signal
21 obtained by filtering the component in a predetermined

22 frequency band of the output signal of the quadrature
23 modulator as a second transmission signal;
24 a first transmitter for amplifying the first
25 transmission signal and transmitting the resulting signal
26 via a first antenna; and
27 a second transmitter for amplifying the second
28 transmission signal and transmitting the resulting signal
29 via a second antenna.

1 **Claim 2 (currently amended):** Radio communications
2 apparatus ~~according to claim 1, further comprising:~~

3 a quadrature modulator for making the transition of
4 the phase of a modulated wave via a in-phase component and
5 a quadrature component;

6 a first voltage-controlled oscillator for outputting
7 a first transmission signal;

8 a second voltage-controlled oscillator;

9 a first mixer for frequency-converting the first
10 transmission signal based on the output signal of the
11 second voltage-controlled oscillator;

12 a phase comparator for comparing the phase of the
13 output signal of the quadrature modulator with the phase of
14 the output signal of the first mixer;

15 a low-pass filter for filtering the component below a
16 predetermined frequency of the output signal of the phase
17 comparator and supplying the resulting signal to the

18 frequency control terminal of the first voltage-controlled
19 oscillator;
20 a first band-pass filter for outputting a signal
21 obtained by filtering the component in a predetermined
22 frequency band of the output signal of the quadrature
23 modulator;
24 a third voltage-controlled oscillator;
25 a second mixer for frequency-converting the output
26 signal of the first band-pass filter based on the output
27 signal of the third voltage-controlled oscillator; and
28 a second band-pass filter for outputting a signal
29 obtained by filtering the component in a predetermined
30 frequency band of the output signal of the second mixer as
31 a second transmission signal.

1 **Claim 3 (currently amended):** Radio communications
2 apparatus ~~according to claim 1, further comprising:~~
3 a quadrature modulator for making the transition of
4 the phase of a modulated wave via a in-phase component and
5 a quadrature component;
6 a first voltage-controlled oscillator for outputting
7 a first transmission signal;
8 a second voltage-controlled oscillator;
9 a first mixer for frequency-converting the first
10 transmission signal based on the output signal of the
11 second voltage-controlled oscillator;

12 a phase comparator for comparing the phase of the
13 output signal of the quadrature modulator with the phase of
14 the output signal of the first mixer;

15 a low-pass filter for filtering the component below a
16 predetermined frequency of the output signal of the phase
17 comparator and supplying the resulting signal to the
18 frequency control terminal of the first voltage-controlled
19 oscillator;

20 a first band-pass filter for outputting a signal
21 obtained by filtering the component in a predetermined
22 frequency band of the output signal of the quadrature
23 modulator;

24 a second mixer for frequency-converting the output
25 signal of said first band-pass filter based on the output
26 signal of the second voltage-controlled oscillator; and

27 a second band-pass filter for outputting a signal
28 obtained by filtering the component in a predetermined
29 frequency band of the output signal of the second mixer as
30 a second transmission signal.

Claim 4 (canceled)

1 **Claim 5 (original):** Radio communications apparatus
2 according to claim 2, further comprising:

3 a first transmitter for amplifying a first
4 transmission signal output from the first

5 voltage-controlled oscillator and transmitting the
6 resulting signal via an antenna; and
7 a second transmitter for amplifying a second
8 transmission signal output from the second band-pass filter
9 and transmitting the resulting signal via an antenna.

1 **Claim 6 (original):** Radio communications apparatus
2 according to claim 3, further comprising:

3 a first transmitter for amplifying a first
4 transmission signal output from the first
5 voltage-controlled oscillator and transmitting the
6 resulting signal via an antenna; and

7 a second transmitter for amplifying a second
8 transmission signal output from the second band-pass filter
9 and transmitting the resulting signal via an antenna.

Appl. No. 09/893,854
Amdt. Dated April 29, 2005
Reply to Office action of February 8, 2005

Amendments to the Drawings:

The attached sheets of drawings includes changes to Figs. 6-9. These sheets, which include Figs. 5-9, replace the original sheets including Figs. 5-9. Figs. 6-9 have been labeled "Related Art".

Attachment: Replacement Sheet